

**Notice of Allowability**

Application No.

10/617,199

Examiner

Laura E. Edwards

Applicant(s)

LEVENDUSKY ET AL.

Art Unit

1734

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the filing of the application as of 7/9/03.
2. ☒ The allowed claim(s) is/are 1-51.
3. ☒ The drawings filed on 09 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

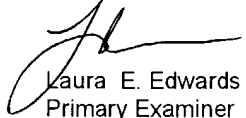
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 070903
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
Laura E. Edwards  
Primary Examiner  
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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

**In the specification:**

On page 1, line 4, --(abandoned), -- has been inserted after "December 19, 2001, ".

The following is an examiner's statement of reasons for allowance:

Claims 1-31 are allowable because there is no teaching or suggestion in the prior art of an apparatus for coating both sides of metal strip with polymer comprising the combination of a preheater for heating an uncoated metal strip, first and second pairs of rolls downstream of the preheater, each pair of rolls including a casting roll and a backup roll, and the casting roll and backup roll for each pair of rolls forming a nip for moving the metal strip therethrough; first and second extrusion dies located above, respectively, the first and second pairs of rolls, the dies disposed to extrude molten polymer webs onto opposite sides of the metal strip at the roll nips or just ahead of the roll nips, and the roll nips press the polymer webs to opposite sides of the metal strip to adhere the polymer webs to the metal strip, a reheater located between the first and second pairs of rolls for reheating the metal strip and polymer web deposited thereon as the metal strip passes between the first and second pairs of rolls, a postheater located downstream of the first and second pairs of rolls for heating the coated metal strip and enhancing bonding between the polymer webs and the opposite sides of the metal strip; and a quenching device located

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downstream of the postheater for quickly cooling the coated metal strip after the strip moves through the postheater.

Claims 32-40 are allowable because there is no teaching or suggestion in the prior art of an apparatus for coating both sides of metal strip with polymer comprising the combination of a preheater for heating uncoated metal strip; a pair of casting rolls located downstream of the preheater, with the casting rolls forming a nip for moving the metal strip therethrough, and with the casting rolls each having a resilient roll surface for contacting the metal strip; first and second extrusion dies located above, respectively, the casting rolls, with the extrusion dies disposed to extrude molten polymer webs onto opposite sides of the metal strip at the roll nip formed by the casting rolls or just ahead of the roll nip, and with the roll nip pressing the polymer webs to the opposite sides of the metal strip to adhere the polymer webs to the metal strip, a postheater located downstream of the casting rolls for heating the metal strip and enhancing the bonding between the polymer webs and opposite sides of the metal strip; and a quenching device located downstream of the postheater for quickly cooling the coated metal strip after the metal strip moves through the postheater.

Claims 41-51 are allowable because there is no teaching or suggestion in the prior art of an apparatus for coating both sides of metal strip with polymer comprising the combination of a preheater for heating uncoated metal strip; a pair of applicator rolls downstream of the preheater, with the applicator rolls forming a roll nip for moving the metal strip therethrough, a pair of pinning and drawing rolls located adjacent, respectively, the applicator rolls; first and second extrusion dies located above, respectively, the pinning and drawing rolls, the extrusion dies extrude molten polymer webs onto the roll surfaces of the pinning and drawing rolls, the

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pinning and drawing rolls operable to rotate at a higher surface velocity than the velocity of the molten polymer webs exiting the extrusion dies, thereby drawing the polymer webs to a reduced thickness prior to passing the polymer webs to the applicator rolls, and the with the roll nip formed by the applicator rolls configured to press the polymer webs to opposite sides of the metal strip to adhere the polymer webs to the metal strip, a postheater located downstream of the applicator rolls for heating the metal strip and enhancing the bonding between the polymer webs and the opposite sides of the metal strip, and a quenching device downstream of the postheater for quickly cooling the coated metal strip after the metal strip moves through the postheater.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent discloses the state of the art with respect to an extruder arrangement including pre-heating and post cooling: Olvey (US 5,772,819). The following patent discloses the state of the art with respect to a powder coating arrangement for a web including preheating, coating via rollers, postheating: Schermutzki (US 4,790,257).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Edwards whose telephone number is (571) 272-1227. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Laura E. Edwards  
Primary Examiner  
Art Unit 1734

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February 25, 2004